

II. Remarks

The Official Action of April 12, 2011 has been thoroughly studied. Accordingly the following remarks are believed to be sufficient to place the application into condition for allowance.

Claims 1-6 and 9-12 are pending in this application.

Claims 1-6 and 9-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0068797 to Ikemoto et al. in view of U.S. Patent Application Publication No. 2004/0106723 to Yang et al. and U.S. Patent Application Publication No. 2004/0226393 to Hong.

For the reasons set forth below, it is submitted that each of the pending claims are allowable over the prior art of record and therefore, the outstanding rejection of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Ikemoto et al. as disclosing:

...a rubber composition comprising 1) a rubber compound composed of at least one of an ethylene-propylene-diene (EPDM) terpolymer and an ethylene-propylene (EPM) copolymer, 2) a peroxide vulcanizing agent, 3) a resorcinol-based compound, and 4) a melamine resin (¶0008-0011) (claims 1, 2). Example 1 of Ikemoto discloses a rubber composition comprising 100 parts of ESPRENE 501A, an EPDM rubber having a Mooney viscosity (ML 100°C) of 43 and comprising 50% ethylene, 4% diene, and, by extension, 46% propylene and 4.2 parts di-t-butyl peroxy-diisopropylbenzene as a peroxide vulcanizing agent (¶0038) (claims 1, 2). Example 7 of Ikemoto discloses a rubber composition prepared in a manner similar to Example 1, except ESPRENE 201, an EPM rubber having a Mooney viscosity (ML 100°C) of 43, was used instead of EPDM. Ikemoto teaches that the rubber compositions of US20020068797 may be used as rubber vibration insulators (¶0036).

As stated above, Ikemoto recites that the rubber compound is composed of at least one of EPDM and EPM; Ikemoto therefore teaches the use of a rubber composition comprising a blend of EPDM and EPM. The examiner

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therefore takes the position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare a blend rubber comprising ESPRENE 501A and ESPRENE 201 to prepare a rubber composition as described in US20020068797 (claim 2).

Hong has been relied upon as disclosing a conventional crankshaft that is equipped with a damper pulley.

The Examiner concedes that:

Ikemoto and Hong are both silent regarding the addition of a C₈-C₁₂ α-olefin oligomer having a number average molecular weight of 300-1400 to EPDM/EPM.

The Examiner has relied upon Yang et al. as disclosing:

...the use of oligomers of C₆ to C₁₄ α-olefins (claims 1, 2) (¶0077) having a number average molecular weight in the range of **100-21,000** (claims 1, 2) (¶0079) as a non-functional plasticizer (NFP) for polyolefin homopolymers and copolymers (¶0002, 0039). Yang discloses that the polyolefin is present in the final composition at levels from 40 to 99.9% by weight, based on the total weight of polyolefin and NFP; by extension, the composition comprises 0.1 to 60% be weight of the NFP (claims 1, 2) (¶0043). Yang discloses that the addition of the NFP results in a polymer composition having improved properties (¶0007-0008).

The Examiner further states:

Ikemoto teaches that the polymer composition of US2002/0068797 may contain additives (¶0033-0034). As taught by Yang, it was known in the art to use low molecular weight oligomers of C₆ to C₁₄ α-olefins as plasticizers for polyolefin copolymer.

The Examiner therefore takes the position that:

...it would have been obvious....to modify the damper rendered obvious by the combination of Ikemoto and Hong by adding 1-60% by weight of a C₆ to C₁₄ α-olefins having Mn of 100 to 21,000 to the EPDM/EPM composition, for the purpose of obtaining a damper having improved properties, as taught by Yang.

In applicants' previous Amendment filed January 31, 2011 in order to demonstrate a criticality that demarks applicants' lower limit Mn of 300 and the preferred (and now claimed) lower limit Mn of 400, applicants obtained an α -olefin oligomer having a Mn of 443 and conducted tests as described in Experiment 1 in applicants' specification.

In the *Response to Arguments* section of the Office Action the Examiner noted three points:

1) Objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence of unexpected results; see *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). The arguments of counsel cannot take the place of evidence in the record, see *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results; see MPEP § 716.01 (c) (I and II). The reason for requiring evidence in declaration or affidavit form is to obtain the assurances that any statements or representations made are correct, as provided by 35 U.S.C. 25 and 18 U.S.C. 1001; see MPEP § 716.02(g). As applicant has not provided the new data in the form of an affidavit or declaration, it cannot be relied upon to overcome the rejection of claims under 35 U.S.C. 103(a).

2) To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range; see *In re Hill*, 284 F.2d 955, 128, USPQ 197 (CCPA 1960). Applicant's comparison of an inventive composition an oligomer having Mn of 690 to a comparative composition comprising an oligomer having Mn of 2000 does not

demonstrate the criticality of the claimed upper limit of 1000, per the reasons outlined in the previous Office Action.

3) Regarding the claimed lower limit, the examiner notes that applicant's arguments explicitly state that the critical lower limit for the Mn is 300 (see remarks page 10, lines 11-15); applicant therefore appears to admit on the record that the claimed lower limit of 400 is not critical.

Regarding the first point noted by the Examiner under the *Response to Arguments* section, applicants are resubmitting the testing results, data and observations relating to the α -olefin oligomer having a Mn of 443 in a Declaration under 37 FCR §1.132 submitted by Makoto Sanpei (the "SANPEI Declaration"). It is noted that while the SANPEI Declaration submitted herewith is unexecuted, an executed copy of the SANPEI is being obtained and will be submitted to the Examiner in due course.

Regarding the second point noted by the Examiner under the *Response to Arguments* section, applicants note that they are only submitting evidence to prove that applicants' claimed lower limit of an Mn or 400 provides results that are unexpected over the lower Mn of Yang et al which is 100 (or 200) in order to establish a clear and factual demarcation between the lower limit taught by Yang et al. and disclosed by applicants. On the other hand applicants' upper limit of 1,000 is not even close to the upper limit of 10,000 which Yang et al. discloses.

Regarding the third point noted by the Examiner under the *Response to Arguments* section, applicants note that applicants reasonable believe that there is a criticality associated with a lower Mn of 300 and therefore a higher Mn demonstrates the same characteristics of the criticality as compared to the prior art teaching.

The fact that applicants are claiming a lower Mn of 400 is their prerogative since they are permitted to claim less than the invention which their disclosure supports.

The testing of the α -olefin oligomer having a Mn or 443, presented in the SANPEI Declaration is believed to establish a criticality and unexpected results for the use of an α -olefin oligomer having a Mn of 400 or greater (as compared to the lower Mn of 100 taught by Yang et al.).

Based upon the above it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

Conclusion

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved; the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 23-1925 and please credit any excess fees to such deposit account.

Respectfully submitted,

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